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THE POLITICAL, ECONOMIC, SOCIAL, AND TECHNOLOGICAL EVOLUTION OF THE SPACE
SECTOR IN AZERBAIJAN

Abstract

Azerbaijan's history in space exploration can be tracked back the Soviet era. During this period, the country played a significant role in the Soviet space program, contributing to the development of rocket engines, and launching facilities. Today, the Azerbaijan National Aerospace Agency (NASA) is responsible for the development and implementation of all space-related projects in the nation. On the other hand, Azercosmos operates and commercializes Azerbaijan's satellites which include Azerspace-1, and Azerspace-2. What is more, Azercosmos provides satellite services for broadcasting, telecommunications, and broadband internet in Azerbaijan and its neighboring regions.

This paper examines how Azerbaijan's space exploration initiatives have evolved from the Soviet era to today, highlighting the significant efforts made by NASA and Azercosmos to position Azerbaijan as an important player in the new space economy. At the same time, this analysis also provides a comprehensive assessment of Azerbaijan's space sector across four dimensions: political, economic, social, and technological, offering valuable insights into Azerbaijan's overall space capabilities over the years.

From a political perspective, this research assesses Azerbaijan's political system, the current level of government support and funding towards its space sector, as well as Azerbaijan's international partnerships with other countries and space agencies across the globe. The economic impact of Azerbaijan's space activities is an important aspect extensively discussed in this study, exploring how the space sector's growth can contribute to job creation, innovation, and the strengthening of other national industries.

It should be noted that Azercosmos strongly supports space education initiatives that foster interest in space exploration among the youth, as a result various events such as CanSat Azerbaijan, the Rocketry Azerbaijan Festival, the ActInSpace Hackathon, the NASA Space Apps Challenge, and World Space Week, are organized on a yearly basis. Additionally, visits to operation and research facilities, and training programs are often organized with the support of local entities. Without a doubt, Azerbaijan's space sector has a positive impact on society. Next, Azerbaijan's technological advancements in satellite manufacturing, remote sensing, earth observation, and ground station development will be thoroughly reviewed. Lastly, this report will provide a comparative analysis of Azerbaijan's space sector against those of other countries in Western Asia. This will establish a benchmark for evaluating current policies and for providing future recommendations.